

CLAIMS

What is claimed is:

1. A method for operating a computing device, comprising:
allocating resources of the computing device to a plurality of resource sets prior to
loading a desired O/S layer for the computing device; and

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loading a desired operating system on each set of the plurality of resource sets at
the desired O/S layer.

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2. The method of claim 1, wherein allocating resources comprises organizing
the resources in a ROM-based environment.

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3. The method of claim 2, wherein organizing the resources in the ROM-based environment comprises gathering device data from a BIOS module.

4. The method of claim 1, wherein allocating resources comprises dividing
the resources in an initialization phase of the computing device.

5. The method of claim 4, wherein allocating resources comprises sharing at
least a portion of the resources.

6. The method of claim 1, wherein allocating resources comprises identifying and initializing at least a portion of the resources.
7. The method of claim 1, wherein allocating comprises manually selecting desired allocations of the resources via a user interface.
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8. The method of claim 1, comprising running multiple desired operating systems at the desired O/S layer on the computing device.
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9. A method for simultaneously supporting a plurality of independent operating systems on a computing device, comprising:
- cataloguing resources of the computing devices prior to O/S booting for the computing device;
- dividing the resources into multiple subsets prior to O/S booting; and
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- loading the plurality of independent operating systems, at least one O/S being loaded on each resource set of the multiple subsets.
10. The method of claim 9, wherein the plurality of independent operating systems provide independent platforms for loading and running application software.
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11. The method of claim 10, wherein cataloguing, dividing and loading are performed in an initialization phase of the computing device.

12. The method of claim 9, wherein dividing the resources comprises
5 allocating desired portions of hardware and system services to each of the multiple subsets.

13. The method of claim 12, wherein allocating desired portions of hardware and system services comprises sharing the system services between the multiple subsets
10 and the independent operating systems loaded thereon.

14. A system for booting a computing device, comprising:
a resource tabulator module configured to organize data on system resources for
the computing device;
15 a resource divider module configured to create multiple resource sets for the
computing device; and
an operating system loader module configured to load a desired operating system
on each of the multiple resource sets.

20 15. The system of claim 14, wherein the resource tabulator module and the resource divider module are disposed in a pre-boot environment.

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16. The system of claim 15, wherein the resource tabulator module and the resource divider module are disposed in ROM.

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17. The system of claim 14, wherein the pre-boot environment comprises hardware detection modules for the system resources.

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18. The system of claim 14, wherein the pre-boot environment comprises hardware driver modules for the system resources.

19. The system of claim 14, wherein the resource divider module comprises a user interface.